

IN THE CLAIMS:

Please amend the claims without prejudice or disclaimer, resulting in the following set of claims:

33. (currently amended) An information processing apparatus for displaying on a display device an image on which a motion of an operation article which is held and given the motion by an operator is indicated, the operation article defining a reflecting surface, the information processing apparatus comprising:

- a pixel array light sensing unit operable to receive light reflected from the operation article to generate a first signal, the pixel array light sensing unit including a plurality of pixels arranged along a first dimension, and a plurality of pixels arranged along a dimension perpendicular to the first dimension;
- a state information computing unit operable to compute state information on the basis of the first signal generated by the pixel array light sensing unit and generate a first trigger on the basis of the state information; and
- an image display processing unit operable to display on the display device a first object representing a movement locus of the operation article, the image processing unit operable to display the first object at a time determined by the first trigger.

34. (previously presented) The information processing apparatus as claimed in claim 33, wherein the first object representing the movement locus comprises a beltlike object,

- the image display processing unit represents the movement locus of the operation article by displaying the beltlike object on the display device so that a width of the beltlike object varies for each prescribed unit which includes a frame, and

the width of the beltlike object increases as the frame is updated, and thereafter decreases as the frame is updated.

35. (previously presented) The information processing apparatus as claimed in claim 34, wherein the image display processing unit displays a second object on the display device, the state information computing unit generates a second trigger responsive to positional relation between the second object and the first object representing the movement locus of the operation article meeting a predetermined condition, and the image display processing unit displays a predetermined effect on the display device in response to the second trigger.

36. (currently amended) The information processing apparatus as claimed in claim 33, wherein the state information computing unit computes positional information as the state information of the reflecting surface responsive to speed information as the state information of the reflecting surface exceeding a predetermined first threshold value until the speed information becomes less than a predetermined second threshold value, or computes the positional information of the reflecting surface after the speed information of the reflecting surface exceeds the predetermined first threshold value but before the reflecting surface deviates beyond a photographing range of the pixel array light sensing unit,

the state information computing unit determines, responsive to the positional information of the reflecting surface being obtained for three or more times, appearance of the first object representing the movement locus of the operation article on the basis of the first positional information of the reflecting surface and the last positional information of the reflecting surface, and

the state information computing unit generates, responsive to the positional information of the reflecting surface being obtained for three or more times, the first trigger on the basis of the state information.

37. (previously presented) The information processing apparatus as claimed in claim 33, wherein the first object representing the movement locus comprises a beltlike object, the image display processing unit represents the movement locus of the operation article by displaying the beltlike object on the display device so that a width and a length of the beltlike object vary for each prescribed unit which includes a frame, and the beltlike object increases in length as the frame is updated, and responsive to the length becoming a predetermined length, the width of the beltlike object decreases as the frame is updated.

38. (previously presented) The information processing apparatus as claimed in claim 33 further comprising a correction information acquisition unit operable to acquire correction information for correcting positional information as the state information of the reflecting surface, and the state information computing unit computes corrected positional information by using the correction information.

39. (previously presented) The information processing apparatus as claimed in claim 33, wherein the first object includes a plurality of objects.

40. (previously presented) The information processing apparatus as claimed in claim 33, wherein the image display processing unit displays the first object representing the movement locus of the operation article on the display device after a lapse of a predetermined time from a generation of the first trigger.

41. (currently amended) An information processing apparatus for displaying an image on a display device on the basis of a result of detecting an operation article, the operation article defining a plurality of reflecting surfaces, which is grasped and given a motion by an operator, the information processing apparatus comprising:

a pixel array light sensing unit operable to receive light reflected from the operation article to generate

a first signal, the pixel array light sensing unit including a plurality of pixels arranged along a first dimension, and a plurality of pixels arranged along a dimension perpendicular to the first dimension ;

a state information computing unit operable to compute state information of the operation article on the basis of the first signal generated by the pixel array light sensing unit and determine which of the plurality of reflecting surfaces is photographed on the basis of the state information and generate a first trigger on the basis of the state information; and

an image display processing unit operable to display an image on the display device, the image depending on the determined reflecting surface, the image display processing unit operable to display the image at a time determined by the first trigger.

42. (previously presented) The information processing apparatus as claimed in claim 41, wherein the state information includes area information, profile information, or ratio information indicative of a profile, about the reflecting surface.

43. (currently amended) An information processing apparatus for displaying an image on a display device on the basis of a result of detecting an operation article, the operation article defining a plurality of reflecting surfaces, which is grasped and given a motion by an operator, the information processing apparatus comprising:

a pixel array light sensing unit operable to receive light reflected from the operation article to generate a first signal, the pixel array light sensing unit including a plurality of pixels arranged along a first dimension, and a plurality of pixels arranged along a dimension perpendicular to the first dimension ;

a state information computing unit operable to compute state information of the operation article on the basis of the first signal generated by the pixel array light sensing unit and generate a first trigger on the basis of the state information; and

an image display processing unit operable to display an image on the display device in accordance with the state information of the plurality of reflecting surfaces, the image display processing unit operable to display the image at a time determined by the first trigger.

44. (currently amended) An information processing apparatus for displaying on a display device an image on which a motion of an operation article is indicated, the operation article defining a reflecting surface, which is held and given the motion by an operator, the information processing apparatus comprising:

a pixel array light sensing unit operable to receive light reflected from the operation article to generate a first signal, the pixel array light sensing unit including a plurality of pixels arranged along a first dimension, and a plurality of pixels arranged along a dimension perpendicular to the first dimension;

an area information computing unit operable to compute area information of the operation article on the basis of the first signal generated by the pixel array light sensing unit, and generate a trigger responsive to the area information exceeding a predetermined threshold value; and

an image display processing unit operable to display a predetermined object on the display device in response to the trigger, the image display processing unit operable to display the predetermined object at a time determined by the trigger.

45. (previously presented) The information processing apparatus as claimed in claim 44, wherein the image display processing unit moves the predetermined object in response to positional information of the reflecting surface, and

a color of the predetermined object is transparent or translucent.

46. (currently amended) An information processing apparatus for displaying on a display device an image on which a motion of an operation article is indicated, the operation article

defining a reflecting surface, which is held and given the motion by an operator, the information processing apparatus comprising:

- a pixel array light sensing unit operable to receive light reflected from the operation article to generate a first signal, the pixel array light sensing unit including a plurality of pixels arranged along a first dimension, and a plurality of pixels arranged along a dimension perpendicular to the first dimension;
  - a state information computing unit operable to compute state information of the operation article on the basis of the first signal generated by the pixel array light sensing unit and generate a first trigger on the basis of the state information; and
  - an image display processing unit operable to display a character string on the display device, and wherein
- the image display processing unit displays a character string differing from the character string on the display device at a time determined by the first trigger.

47. (previously presented) An information processing apparatus for displaying on a display device an image on which a motion of an operation article is indicated, the operation article defining a reflecting surface, which is held and given the motion by an operator, the information processing apparatus comprising:

- a pixel array light sensing unit operable to receive light reflected from the operation article to generate a first signal, the pixel array light sensing unit including a plurality of pixels arranged along a first dimension, and a plurality of pixels arranged along a dimension perpendicular to the first dimension;
- a state information computing unit operable to compute state information of the operation article on the basis of the first signal generated by the pixel array light sensing unit and generate a first trigger on the basis of the state information; and
- an image display processing unit operable to update a background image at a time determined by the first trigger.

48. (currently amended) An information processing apparatus for displaying on a display device an image on which a motion of an operation article is indicated, the operation article defining a reflecting surface, which is held and given the motion by an operator, the information processing apparatus comprising:

a pixel array light sensing unit operable to receive light reflected from the operation article to generate a first signal, the pixel array light sensing unit including a plurality of pixels arranged along a first dimension, and a plurality of pixels arranged along a dimension perpendicular to the first dimension;

a positional information computing unit operable to compute positional information of the reflecting surface on the basis of the first signal generated by the pixel array light sensing unit ; and

an image display processing unit operable to display a cursor on the display device and move the cursor in accordance with the positional information of the reflecting surface.

49. (previously presented) The information processing apparatus as claimed in claim 48, wherein, responsive to the cursor being displayed so as to be overlapped on a predetermined object, the image display processing unit displays an image associated with the predetermined object on the display device.

50. (previously presented) The information processing apparatus as claimed in claim 48, wherein the image display processing unit displays a character selected by the cursor on the display device.

51. (currently amended) An information processing apparatus for displaying on a display device an image on which a motion of an operation article is indicated, the operation article defining a reflecting surface, which is held and given the motion by an operator, the information processing apparatus comprising:

a pixel array light sensing unit operable to receive light reflected from the operation article to generate a first signal, the pixel array light sensing unit including a

plurality of pixels arranged along a first dimension, and a plurality of pixels arranged along a dimension perpendicular to the first dimension;  
a state information computing unit operable to compute state information of the operation article on the basis of the first signal generated by the pixel array light sensing unit and generate a first trigger on the basis of the state information; and  
a process fixing unit operable to fix execution of a predetermined process on the basis of the state information of the reflecting surface at a time determined by the first trigger.

52. (currently amended) An information processing apparatus for displaying on a display device an image on which a motion of an operation article is indicated, the operation article defining a reflecting surface, which is held and given the motion by an operator, the information processing apparatus comprising:

a pixel array light sensing unit operable to receive light reflected from the operation article to generate a first signal, the pixel array light sensing unit including a plurality of pixels arranged along a first dimension, and a plurality of pixels arranged along a dimension perpendicular to the first dimension;  
a state information computing unit operable to compute state information of the operation article on the basis of the first signal generated by the pixel array light sensing unit ; and  
an image display processing unit operable to display a predetermined object on the display device responsive to the state information that is obtained successively meeting a predetermined condition.

53. (currently amended) An information processing apparatus for displaying an image on a display device on the basis of a result of detecting an operation article, the operation article defining a reflecting surface, which is grasped and given a motion by an operator, the information processing apparatus comprising:

a pixel array light sensing unit operable to receive light reflected from the operation article to generate a first signal, the pixel array light sensing unit including a



plurality of pixels arranged along a first dimension, and a plurality of pixels arranged along a dimension perpendicular to the first dimension;  
a state information computing unit operable to compute state information of the operation article on the basis of the first signal generated by the pixel array light sensing unit and generate a first trigger on the basis of the state information;  
and  
an image display processing unit operable to display on the display device a guide which instructs an operation direction and operation timing of the operation article and display an image on the display device in accordance with the state information, at a time determined by the first trigger.

54. (previously presented) The information processing apparatus as claimed in claim 33, wherein the state information includes speed information, moving direction information, moving distance information, velocity vector information, acceleration information, movement locus information, area information, or positional information.

55. (previously presented) The information processing apparatus as claimed in claim 43, wherein the state information includes speed information, moving direction information, moving distance information, velocity vector information, acceleration information, movement locus information, area information, number information, or positional information.

56. (previously presented) The information processing apparatus as claimed in claim 46, wherein the state information includes speed information, moving direction information, moving distance information, velocity vector information, acceleration information, movement locus information, area information, or positional information.

57. (previously presented) The information processing apparatus as claimed in claim 47, wherein the state information includes speed information, moving direction information,

moving distance information, velocity vector information, acceleration information, movement locus information, area information, or positional information.

58. (previously presented) The information processing apparatus as claimed in claim 51, wherein the state information includes speed information, moving direction information, moving distance information, velocity vector information, acceleration information, movement locus information, area information, or positional information.

59. (previously presented) The information processing apparatus as claimed in claim 52, wherein the state information includes speed information, moving direction information, moving distance information, velocity vector information, acceleration information, movement locus information, area information, or positional information.

60. (previously presented) The information processing apparatus as claimed in claim 53, wherein the state information includes speed information, moving direction information, moving distance information, velocity vector information, acceleration information, movement locus information, area information, or positional information.

61. (previously presented) An operation article which is operated by the operator of the information processing apparatus as set forth in claim 41, wherein the operation article is provided with a plurality of reflecting surfaces.

62. (previously presented) An operation article which is operated by the operator of the information processing apparatus as set forth in claim 43, wherein the operation article is provided with a plurality of reflecting surfaces.